(12) UK Patent Application (19) GB (11) 2 389 300 (13) A

(43) Date of A Publication 10.12.2003

(21) Application No: 0312721.4

(22) Date of Filing: 03.06.2003

(30) Priority Data:
(31) 0201754 (32) 06.06.2002 (33) SE

(71) Applicant(s):
SCA Hygiene Products AB
(Incorporated in Sweden)
S-405 03 Göteborg, Sweden

(72) Inventor(s):
Kent Vartiainen

(74) Agent and/or Address for Service:
Boult Wade Tennant
Verulam Gardens, 70 Gray's Inn Road,
LONDON, WC1X 8BT, United Kingdom

(51) INT CL[7]:
A61F 13/15

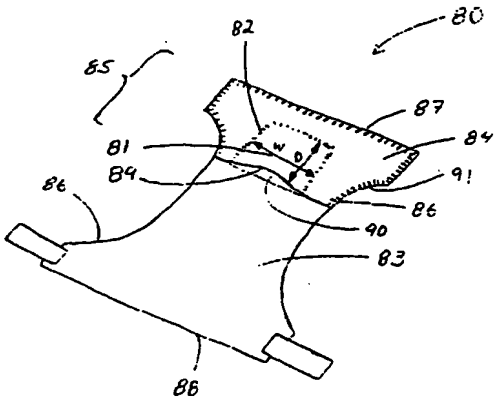
(52) UK CL (Edition V):
A3V V1B3B V6E1

(56) Documents Cited:
GB 2354172 A
GB 2302026 B
WO 1998/013002 A
US 5304158 A
GB 2326811 A
GB 2298354 A
US 5760694 A
US 4964859 A

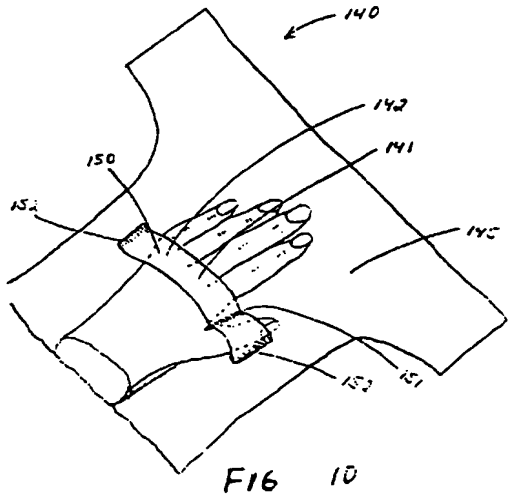
(58) Field of Search:
UK CL (Edition V) A3V
INT CL[7] A61F
Other: Online: EPODOC, JAPIO, WPI

(54) Abstract Title: Absorbent article of wear with pocket to facilitate cleaning wearer

(57) An absorbed article such as a diaper or incontinence pad has a pocket 82 or band 151 on the outside of its front end portion to allow insertion of a carer's hand to enable the article to be used to wipe the wearer's lower abdomen. The pocket may be defined by an external sheet sealed to the backing sheet of the article. The pocket may comprise a discrete region within the front end portion (Fig 2) or it may cover the whole end portion in which case an additional seam 82 may be applied which ruptures easily to allow the whole pocket to be used to enclose the soiled article after use. The seam may be mitten-shaped (Fig 6). Alternatively, the pocket may be elasticated (Fig 3) or lined with friction material to grip the hand or a tab for engagement by the user's fingers may be provided within the pocket (Fig 4). A pocket may also be provided on the rear end portion (Fig 7).



F16 5



F16 10

GB 2 389 300 A

At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

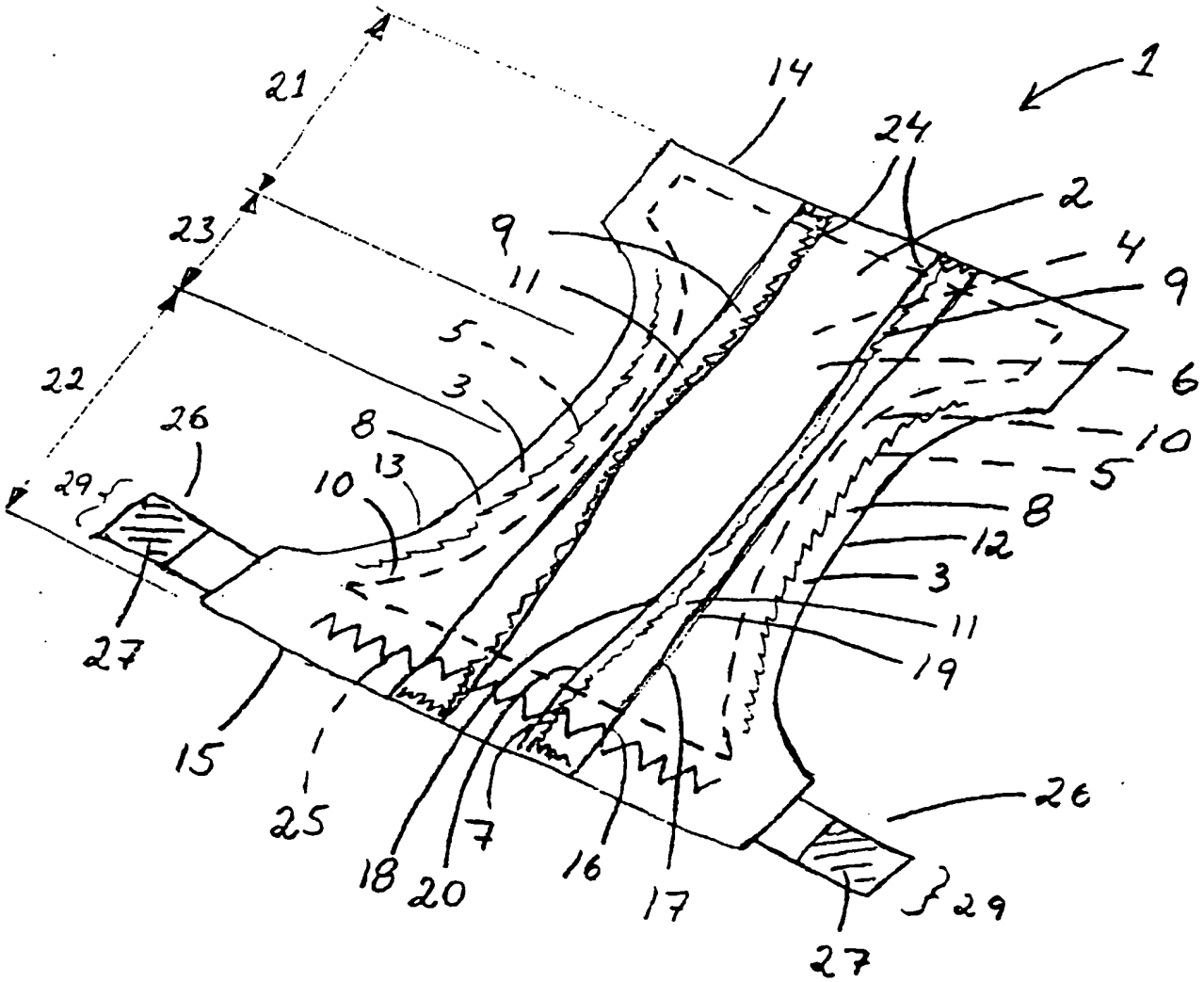
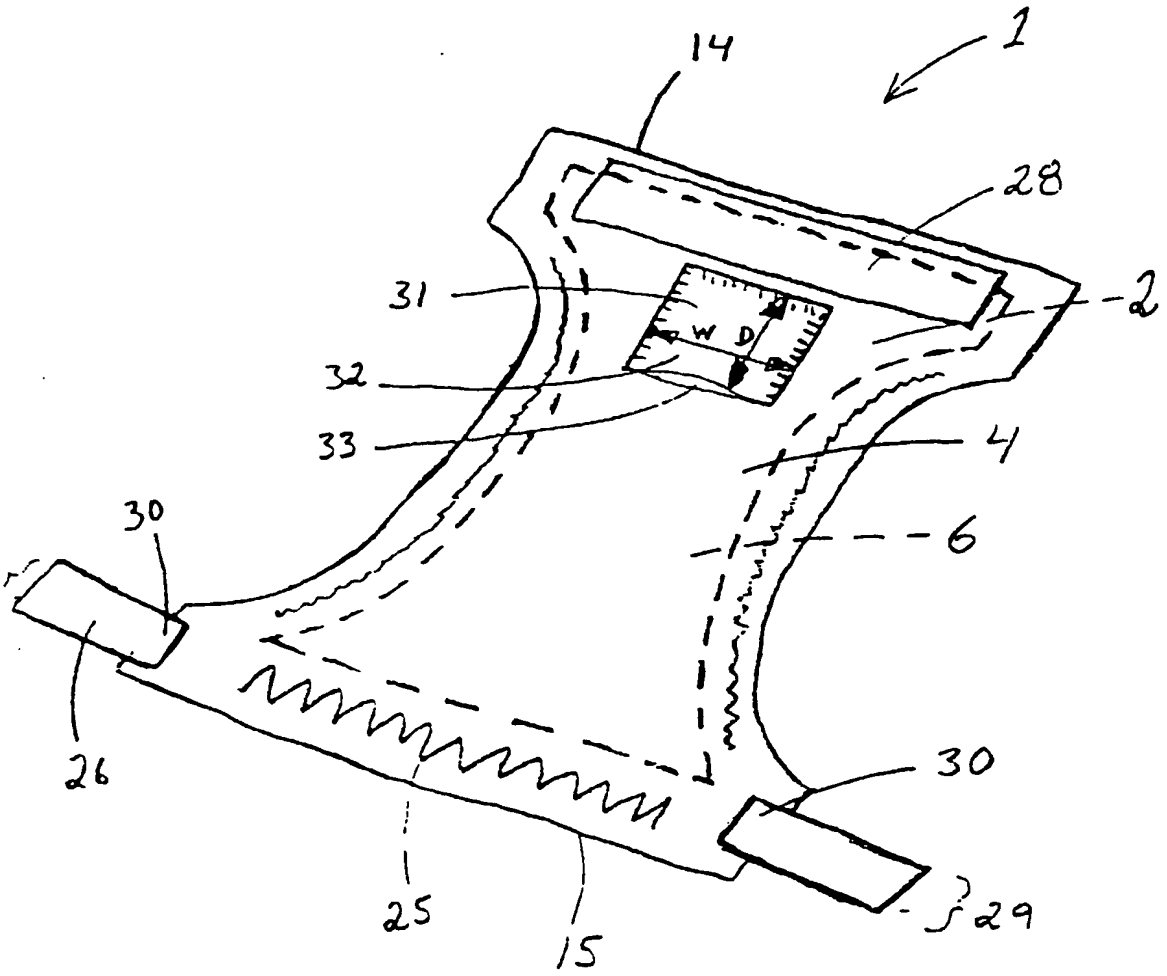


FIG 1



F16 2

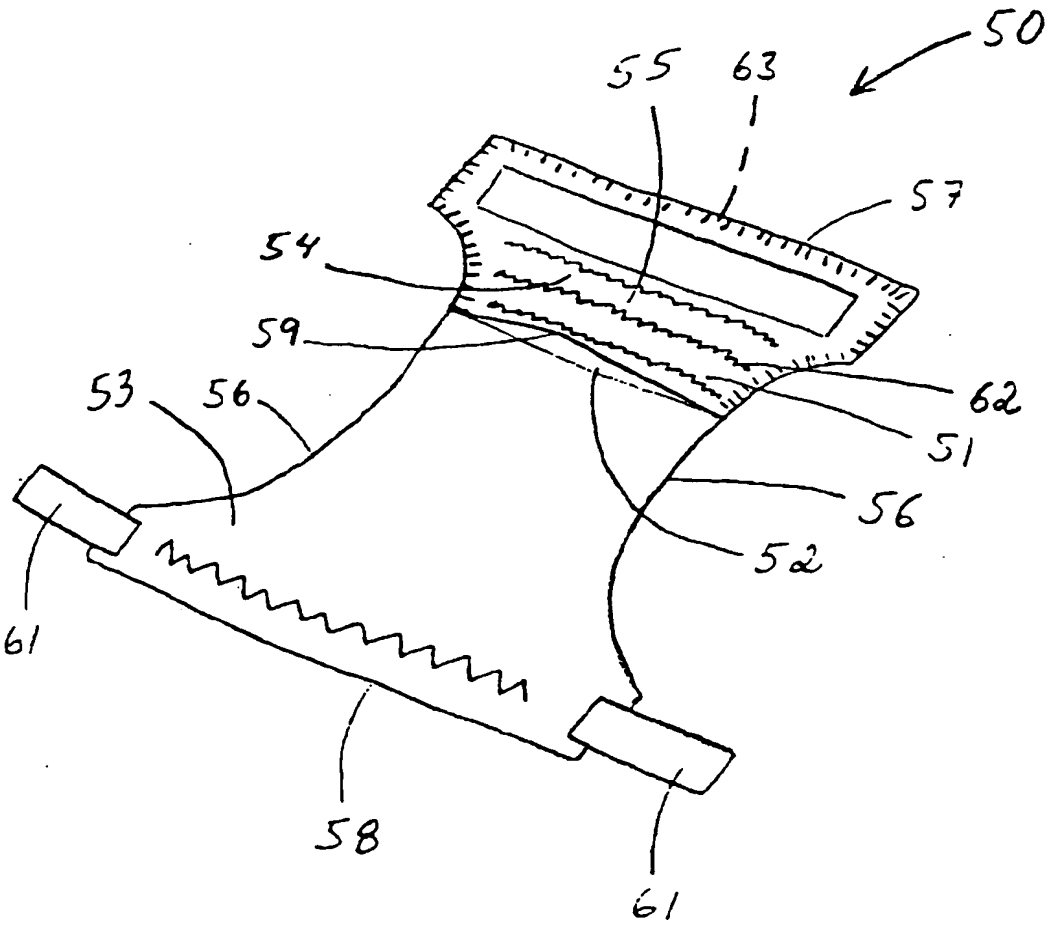


FIG 3

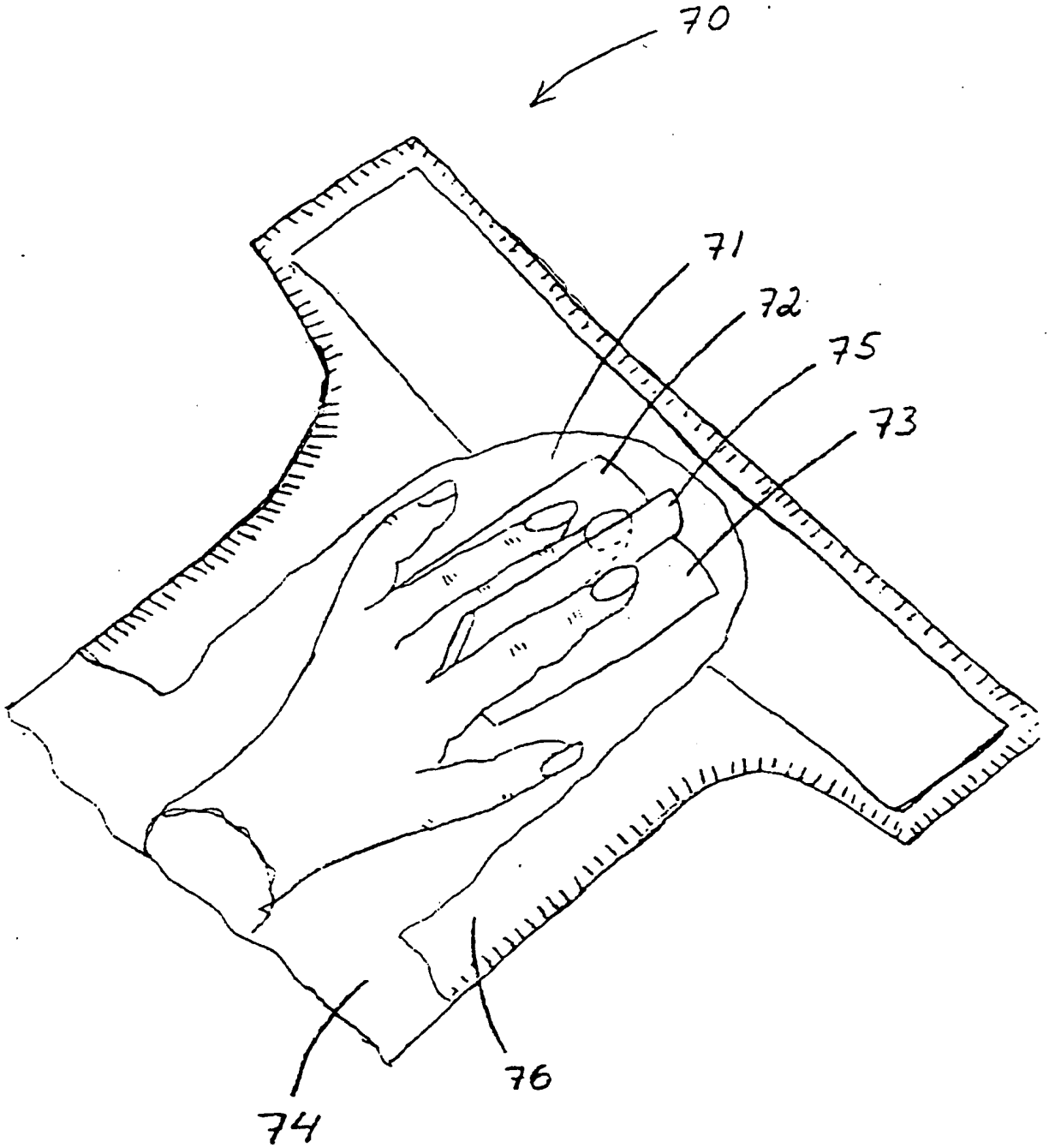


FIG 4

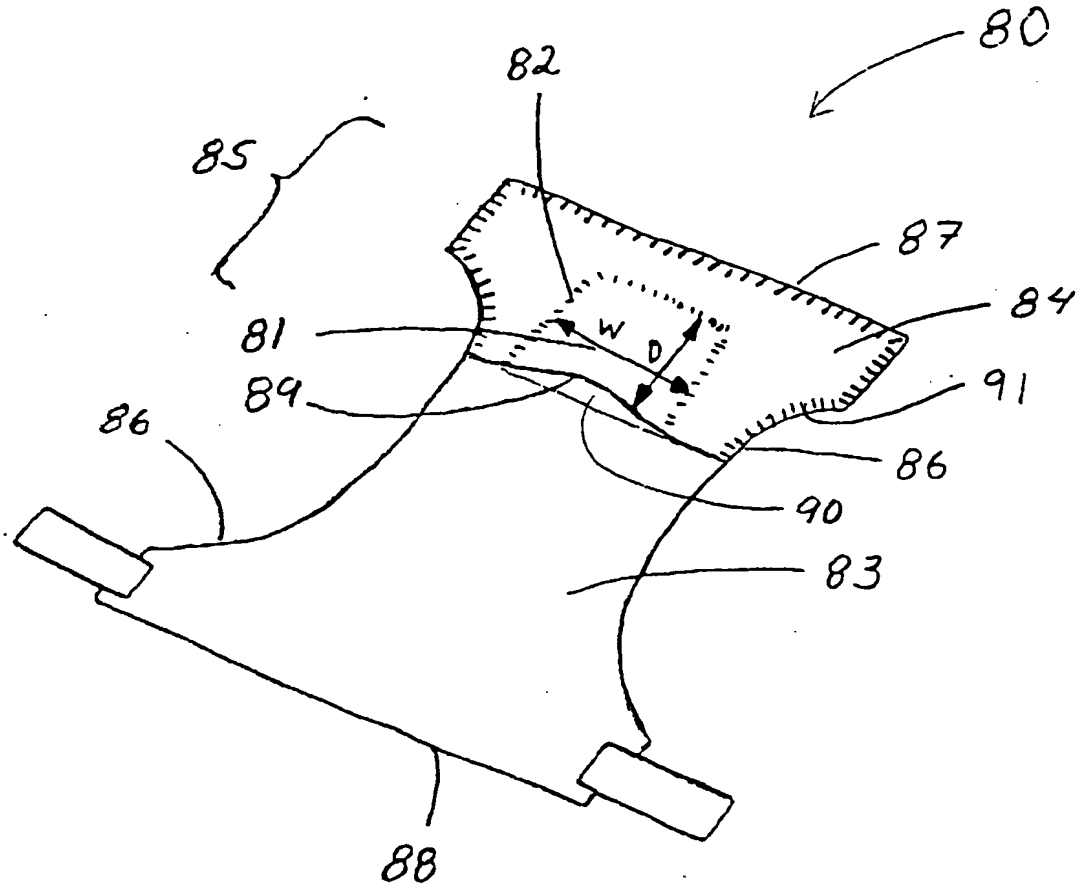


FIG 5

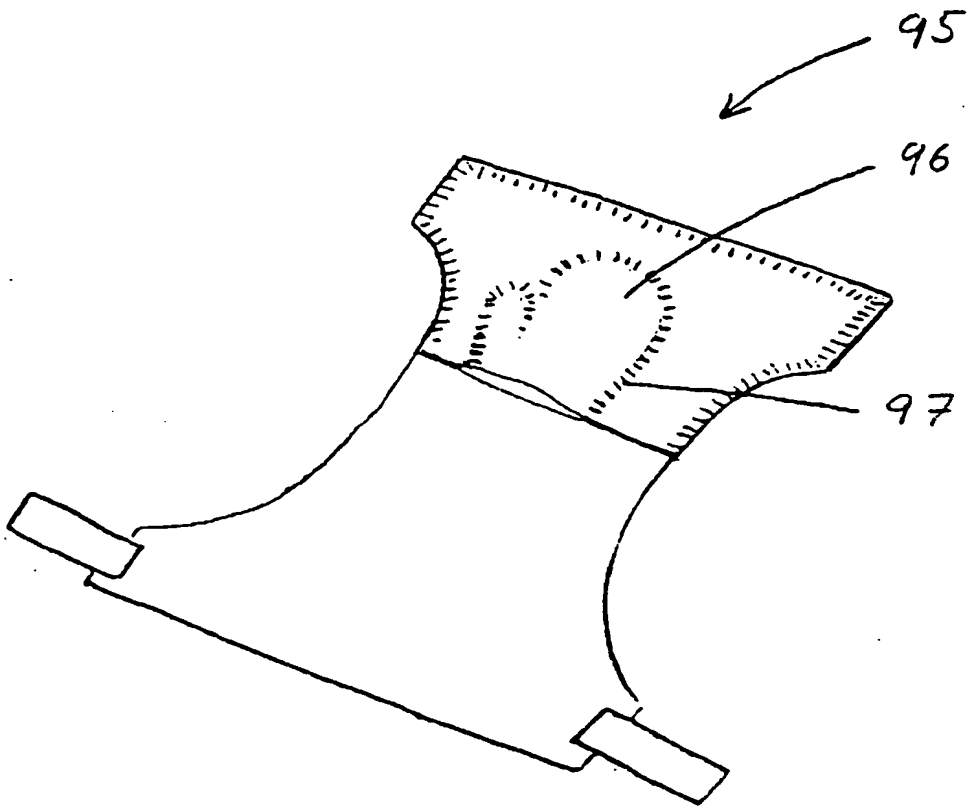


FIG 6

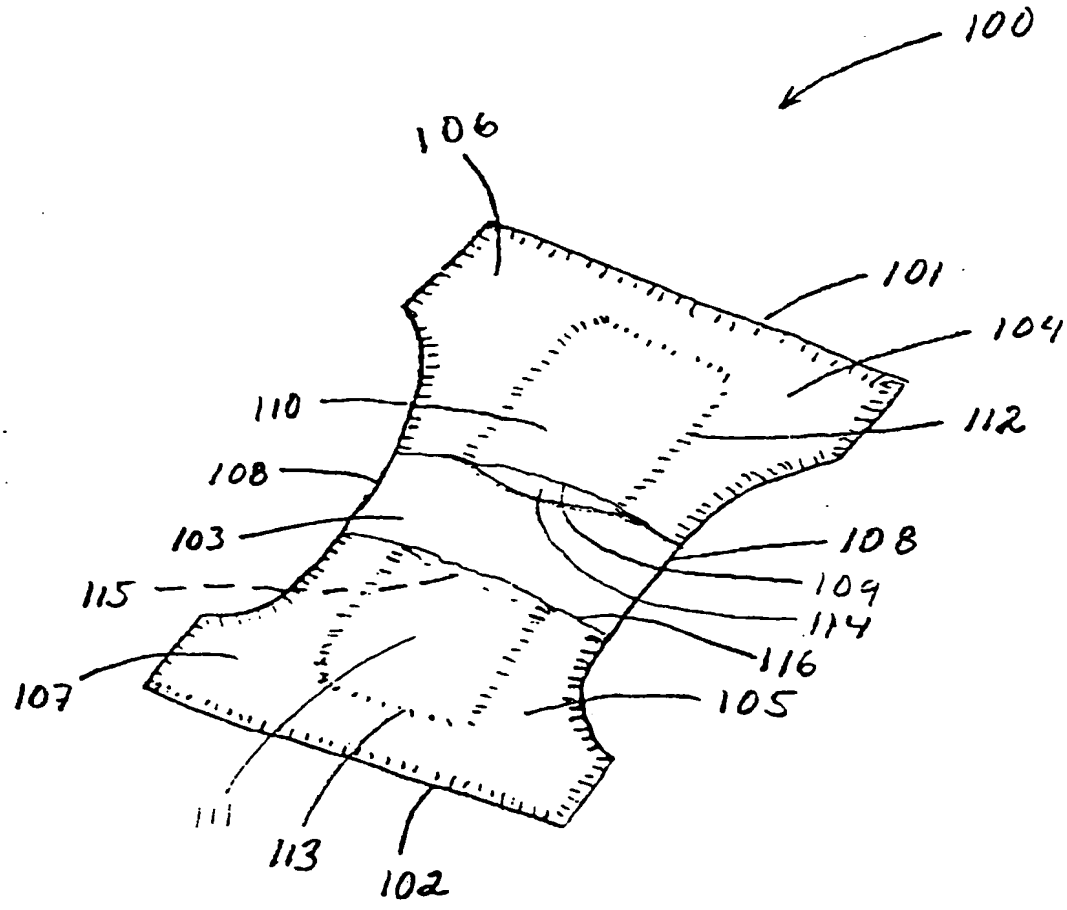


FIG 7

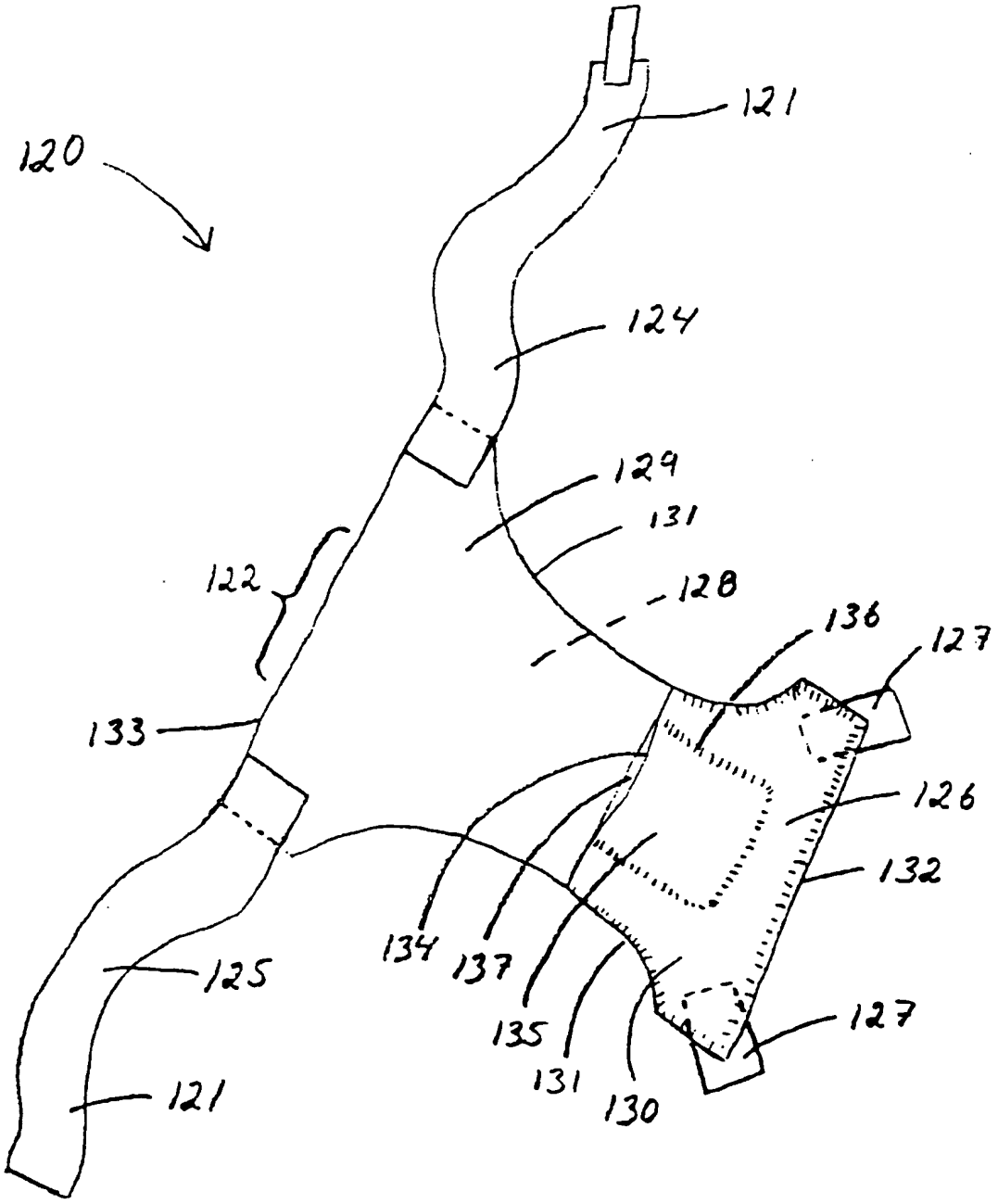

120
121
124
129
131
122
128
136
127
133
126
132
134
137
125
135
127
131
121
130

FIG 8

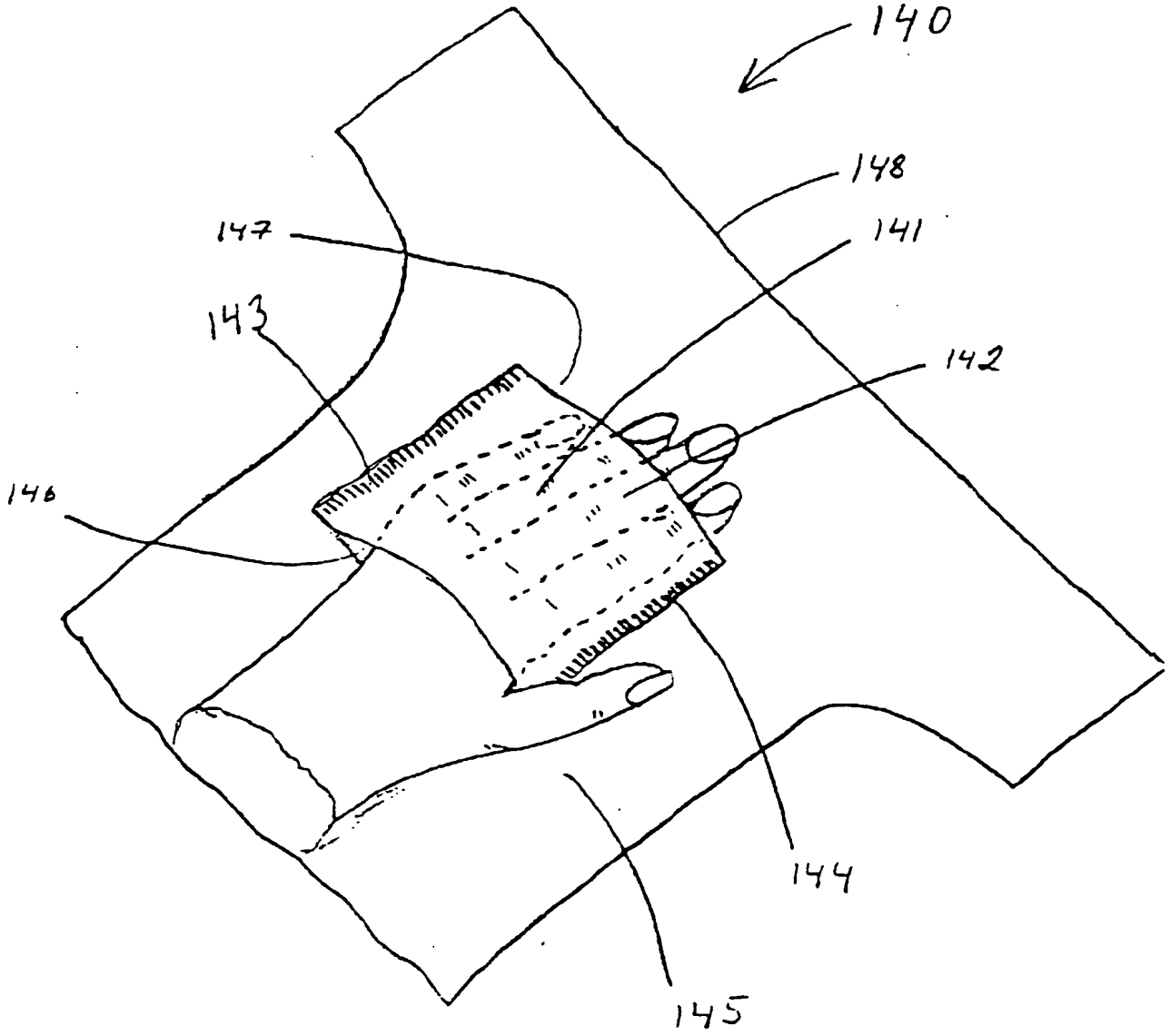
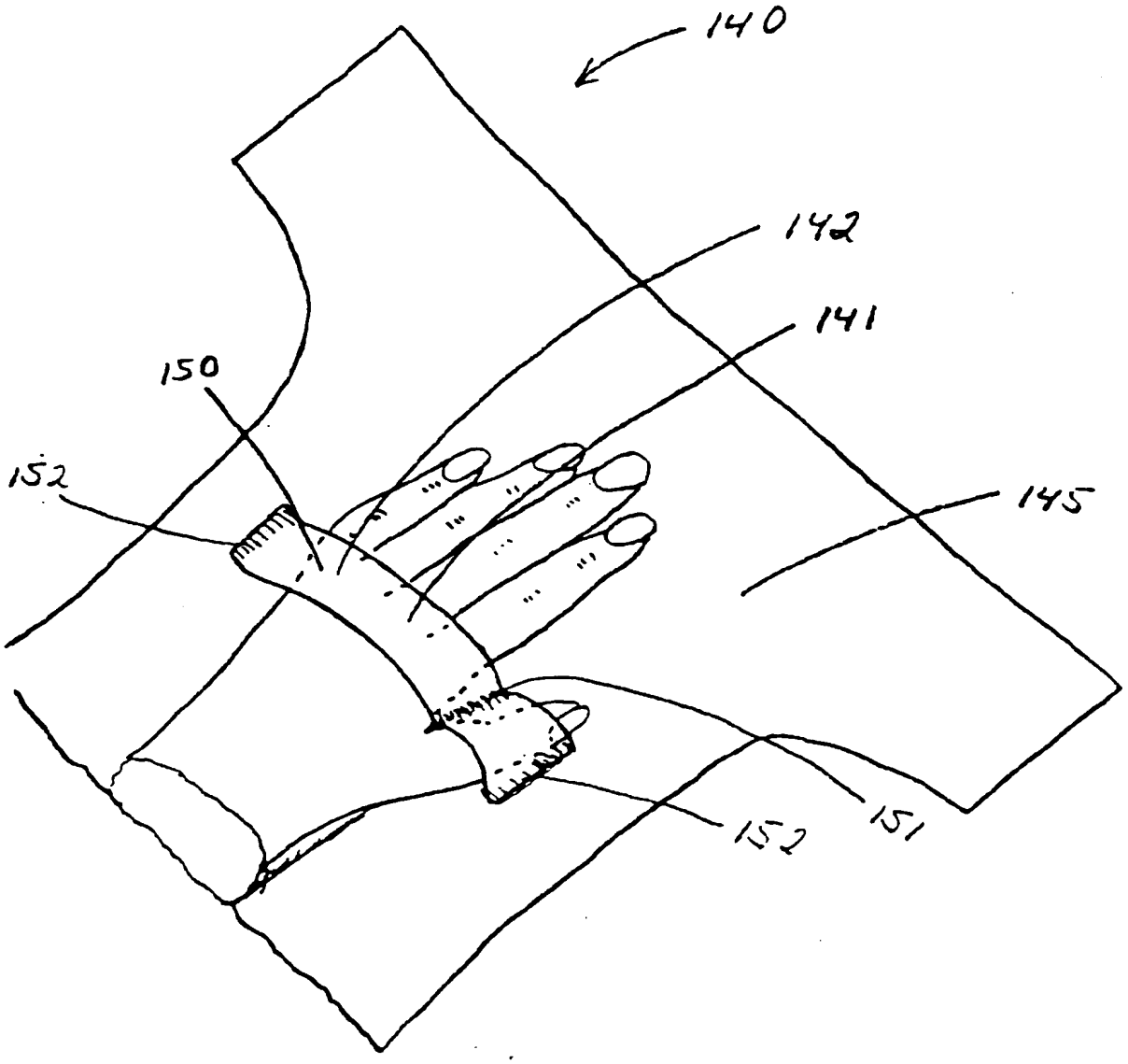


FIG 9



F16 10

ABSORBENT ARTICLE WITH WIPING FUNCTION

TECHNICAL FIELD

The present invention relates to an absorbent article comprising an upper liquid-permeable cover layer, a lower backing layer, and an absorbent body arranged between the cover layer and the backing layer. The absorbent article has a front end portion intended to be oriented towards the front during use, a rear end portion intended to be oriented towards the rear during use, and a crotch portion arranged therebetween.

BACKGROUND ART

Baby diapers and incontinence pads are absorbent articles which are intended to cover the lower part of the trunk of a wearer and comprise a crotch portion and also a front waist portion and a rear waist portion.

The changing of both baby diapers and incontinence pads is in principle always carried out by a person providing care, such as one of the parents of the child in the case of a baby and by an employed carer or relative in the case of an incontinence pad.

When absorbent articles as above are changed, it is not uncommon for the lower abdomen of the wearer to be soiled by urine, faecal matter or other bodily discharges. Soiling on the body of a wearer must then be removed carefully before a new absorbent article is fitted on the wearer.

A normal first step in this cleaning procedure is to rough-wipe the soiled lower abdomen in a suitable way. This initial wiping can be carried out in a number of different ways using a number of different kinds of wiping material.

Many people use ordinary toilet paper for the first rough-wiping. Special washing cloths are also used by many people for both the first rough-wiping and also the subsequent more thorough cleaning of the lower abdomen of the wearer.

Specially designed washing mittens for cleaning the soiled lower abdomen of users of diapers or incontinence pads are also available on the market. A washing mitten normally consists of two fundamentally rectangular material layers which have been interconnected along three of their edges so that a pocket is formed between the material layers. Washing mittens of this kind are in most cases adapted to fit the hand size of an adult person. When a washing mitten is used, the hand of the person who is to carry out the wiping is placed inside the pocket of the washing mitten, after which wiping is carried out. The hand is then well protected against soiling.

An example of a washing mitten of the type indicated above is described in patent document WO 96/16 217.

A disadvantage of all these conventional solutions is that the wiping material, irrespective of the type, is used only for the very short time during which cleaning takes place. Immediately after cleaning has been completed, the toilet paper, the wiping cloth or the washing mitten is thrown away and then constitutes only an unpleasant and troublesome component which increases the quantity of refuse without providing any further benefit.

Another disadvantage of the solutions described above is that great quantities of toilet paper, washing cloths or washing mittens are consumed for this initial wiping because it is often relatively large quantities of faeces which have to be removed, in particular when wiping adult incontinent wearers.

For many people, the cost of the wiping alternatives used previously is thus too high in relation to the limited benefit which use of the washing mittens, the wiping cloths or the toilet paper involves.

Many people responsible for providing care therefore use the diaper or the incontinence pad which has just been removed from the lower abdomen of the wearer for the first wiping. The diaper or the incontinence pad is then usually gripped on the side facing away from the wearer, the diaper or the incontinence pad being crumpled up so that a good grip is obtained. Finally, the initial wiping is carried out using the crumpled-up diaper or incontinence pad, the majority of the soiling being removed from the lower abdomen of the wearer of the diaper or the incontinence pad and ending up on the used diaper. To avoid the genitals of the wearer being soiled by faecal matter, this initial wiping operation is usually carried out from the front and backwards on the wearer. The wiping operation then usually starts just behind the genitals and runs backwards along the buttock cleft of the wearer, the area around the anus of the wearer being passed. The majority of the faecal matter, that is to say the faecal matter located adjacent to the anus of the wearer, can then essentially be removed and collected in the used diaper or incontinence pad. The wiping operation is carried out mainly with that part of the diaper or the incontinence pad which was oriented towards the front on the wearer during use, that is to say that part of the diaper which was not located in the anus area of the wearer during use, and which is therefore normally least soiled by faecal matter.

One advantage of the wiping procedure described is that no extra wiping material is consumed for the first rough-cleaning of the lower abdomen of the wearer, a gain in both financial and environmental terms.

However, a number of problems arise when wiping is carried out using the used diaper or incontinence pad according to the description above.

One disadvantage is that the diaper or the incontinence pad has to be gripped in a secure and effective manner for the wiping operation.

In contrast to the case when, for example, wiping is carried out using a crumpled-up thin wiping material, wiping using a relatively thick material, such as a diaper or an incontinence pad, does not function in a satisfactory manner when the material is crumpled.

Another disadvantage of wiping according to the procedure described above is that the hand of the person providing care can easily become soiled with faecal matter or other substances, because the area and width of the diaper or the incontinence pad have been considerably reduced on crumpling up, the wiping surface having become altogether too small and narrow.

Another disadvantage arises when the diaper or the incontinence pad is crumpled up when the diaper is to be gripped. As the wiping operation is preferably carried out from the front and backwards on the wearer using that part of the diaper or the incontinence pad which is unsoiled by faeces, the diaper or the incontinence pad is gripped and crumpled in its front part, that is to say that part of the diaper or the incontinence pad which was located close to the urine opening of the wearer during use. The diaper or the incontinence pad is therefore gripped in precisely the area which is most saturated with urine, with a great risk of at least capillarily bound urine being pressed out of the diaper and wetting the surrounding environment, for example the changing table of the baby or the bed of the incontinent person.

Baby diapers or incontinence pads provided with different types of pockets arranged on that side of the diaper or the incontinence pad facing away from the wearer during use are described in a number of different patent documents. The pockets described are in some cases arranged in order to

contain essential articles associated with using diapers, such as, for example, special wiping cloths for cleaning the lower abdomen before or after use of the diaper. Examples of patent documents which describe pockets, arranged on that side of the diaper or the incontinence pad which is intended to face away from the wearer during use, for storing items such as wiping cloths or the like are US 4,964,859 and US 5,304,158. These documents also describe how the pockets function as storage pockets for the diaper or the incontinence pad after use, the diaper or the incontinence pad being rolled or folded up, after which the pocket is turned inside out around the rolled-up or folded-up diaper or incontinence pad so as to enclose it.

Document GB 2,326,811 also describes a diaper provided with a pocket, arranged in the rear portion of the diaper, the pocket being intended to be turned inside out around and to enclose the used diaper or incontinence pad.

The problem with the diapers or incontinence pads described which comprise pockets of different designs is that the pockets are only adapted either to be turned inside out around and to enclose the used diaper or incontinence pad and/or to function as storage pockets for wiping cloths or the like.

A need therefore remains for a diaper or an incontinence pad which comprises an effectively functioning fixation pocket for fixing the hand of the person providing care during wiping of the lower abdomen of the wearer by means of the used diaper or incontinence pad.

There is moreover a need for a diaper or an incontinence pad which can be gripped in a secure manner before the wiping operation and then still have an essentially plane wiping surface.

There is furthermore a need for a diaper or an incontinence pad which can be gripped in as gentle a manner as possible during wiping of the lower abdomen of the wearer so that pressing of urine out of the used diaper or incontinence pad is avoided.

Lastly, there is a need for a diaper or an incontinence pad which can be used for wiping the lower abdomen of a wearer where the hand of the wiper is protected from soiling with faecal matter from the lower abdomen of the wearer or from the diaper or the incontinence pad.

DISCLOSURE OF INVENTION

By means of the present invention, an article of the type referred to in the introduction has now been produced, which article essentially eliminates the problems associated with previously known such articles.

In this connection, an absorbent article according to a first embodiment of the invention is characterized mainly in that the article comprises at least one fixation pocket provided with an opening. The fixation pocket is arranged in the front end portion of the article, on that side of the backing layer which faces away from the wearer during use, and is intended for fixing the article to a hand inserted into the fixation pocket.

One part, the outer part, of the fixation pocket can consist of a separate material piece, and the other part, the inner part, of the fixation pocket can consist of the backing layer of the absorbent article. The separate material piece is connected to the backing layer along part of the edge of the separate material piece, to form the pocket, that part of the edge of the separate material piece which constitutes the opening of the fixation pocket not being connected to the backing layer.

In order to achieve maximum possible user-friendliness during wiping using the absorbent article, the opening of the fixation pocket advantageously faces the crotch portion of the absorbent article.

A fixation pocket which is especially suitable with regard to simplicity of manufacture has a rectangular shape when the incontinence pad is in a spread-out state, the fixation pocket having a width between 8 and 25 cm, preferably between 12 and 20 cm, and a depth between 10 and 30 cm, preferably between 11 and 25 cm.

An especially discreet fixation pocket has, according to a second embodiment, the same shape as the front portion of the absorbent article.

As a fixation pocket which has the same shape as the front portion of the absorbent article is usually considerably larger than an inserted hand and the surfaces inside the fixation pocket often consist of material which has low friction against skin, the fixation pocket advantageously comprises a fixation means in order to increase the fixing security and the grippability during wiping.

The fixation pocket can be provided with one or more elastic elements so that the fixation pocket tends to fit tightly around the hand of the person carrying out the wiping.

Alternatively, or in addition to elasticating the fixation pocket, a fixation means which is especially simple to arrange can consist of at least one high-friction surface located inside the fixation pocket.

According to another embodiment, the fixation means of the fixation pocket consists of a gripping tab projecting from the pocket or of a connection line

between the separate material piece of the fixation pocket and the backing layer of the absorbent article. The gripping tab or the connection line then extend in the depth direction of the fixation pocket, the absorbent article being fixed by being held firmly between the two fingers which are located next to the gripping tab or the connection line on each side of the gripping tab or the connection line when wiping is to be carried out.

As it is also desirable for it to be possible to use a fixation pocket according to the invention in order, after use, to enclose the article by turning the fixation pocket inside out around the folded-up or rolled-up article, the fixation pocket can be designed so that the pocket, before or in conjunction with the turning inside out, can be enlarged so that the used article is better accommodated in the fixation pocket. The fixation pocket then has an outer connection line and an inner connection between the separate material piece of the fixation pocket and the backing layer. After wiping, the inner connection can be broken, so that the fixation pocket is enlarged and is delimited by the outer connection line.

For an especially easily manufactured fixation pocket which can be turned inside out, the inner breakable connection has a rectangular shape when the incontinence pad is in a spread-out state, the inner fixation pocket having a width between 8 and 25 cm, preferably between 12 and 20 cm, and a depth between 10 and 30 cm, preferably between 11 and 25 cm.

The fixation pocket, which is delimited by the inner connection, can have a number of different shapes. In an especially advantageous embodiment, the fixation pocket has the shape of a mitten.

In accordance with another embodiment, as some types of absorbent article are symmetrically designed with regard to which end of the article is to be oriented at the rear or at the front on the wearer, two fixation pockets can be

arranged on the article. One pocket is then arranged in that area of the article which is oriented towards the front on the wearer during use, and one pocket is arranged in that area of the article which is oriented towards the rear on the wearer during use.

According to one embodiment of the invention, the absorbent article consists of what is known as a belt diaper.

The absorbent article can be in the form of an incontinence pad or of a baby diaper.

Instead of only one opening, the fixation pocket can have both a first opening and a second opening. The two openings are then essentially arranged in the transverse direction of the article, at right angles to the longitudinal direction.

The fixation pocket can consist of a band which extends in the transverse direction of the article. The band is preferably a narrow band, with a width of 1 to 7 cm.

The band can be connected to the backing layer of the article at its ends and in at least one place between the end connections. The intermediate connection then constitutes an extra fixation during wiping using the absorbent article.

The absorbent article can comprise at least one marking, so that the article can more easily be oriented on a wearer with the fixation pocket positioned towards the front on the wearer.

Here, the longitudinal direction of an absorbent article means the direction which is parallel to the side edges of the article, that is to say the delimiting

edges which extend from one end portion, via the crotch portion, to the other end portion. The transverse direction is then the direction which is fundamentally parallel to the delimiting edges of the article in the end portions, that is to say the end edges.

BRIEF DESCRIPTION OF DRAWINGS

The invention will be described in greater detail below with reference to the illustrative embodiments shown in accompanying figures, in which

Fig. 1 shows a plan view of a diaper according to a first embodiment of the invention from that side of the diaper which is intended to face the wearer during use;

Fig. 2 shows a plan view of a diaper according to a first embodiment of the invention from that side of the diaper which is intended to face away from the wearer during use;

Fig. 3 shows a plan view of a diaper according to a second embodiment of the invention from that side of the diaper which is intended to face away from the wearer during use;

Fig. 4 shows a plan view of that part of the diaper which comprises a fixation pocket in accordance with a third embodiment of the invention, seen from the side which is intended to face away from the wearer during use;

Fig. 5 shows a plan view of a diaper according to a fourth embodiment of the invention from that side of the diaper which is intended to face away from the wearer during use;

Fig. 6 shows a plan view of a diaper according to a fifth embodiment of the invention from that side of the diaper which is intended to face away from the wearer during use;

Fig. 7 shows a plan view of a diaper according to a sixth embodiment of the invention from that side of the diaper which is intended to face away from the wearer during use;

Fig. 8 shows a plan view of what is known as a belt diaper according to a seventh embodiment of the invention from that side of the diaper which is intended to face away from the wearer during use;

Fig. 9 shows a plan view of that part of the diaper which comprises a fixation pocket in accordance with an eighth embodiment of the invention from that side which is intended to face away from the wearer during use, and

Fig. 10 shows a plan view of a diaper comprising a fixation band.

DESCRIPTION OF ILLUSTRATIVE EMBODIMENTS

The invention relates to an absorbent article such as a baby diaper, an incontinence pad or the like.

The first embodiment shown in Figs. 1 and 2 concerns an incontinence pad 1 for heavier forms of incontinence.

The incontinence pad 1 is essentially hourglass-shaped and in this connection has longitudinal edges 12, 13, a front transverse edge 14 and a rear transverse edge 15, and also two end portions 21, 22 and a narrower

crotch portion 23 located between the end portions 21, 22. The crotch portion 23 is intended to be located in the narrowest area between the thighs of the wearer during use.

During use of the incontinence pad 1, the front part of the crotch portion 23 and the front end portion 21 function fundamentally as a receiving area for urine, while the rear part of the crotch portion 23 and the rear end portion 22 function fundamentally as a receiving area for faecal matter.

The incontinence pad 1 comprises a liquid-permeable cover layer 2 arranged over that surface of the incontinence pad 1 which is intended to face the wearer during use, a backing layer 4 arranged over that surface of the article which is intended to face away from the wearer during use, an absorption body 6 enclosed between the liquid-permeable cover layer 2 and the backing layer 4, and also side flaps 3 arranged outside the absorption body 6.

The liquid-permeable cover layer 2 extends outside the absorption body 6 along the entire periphery of the absorption body 6. The liquid-permeable cover layer 2 can consist of any material suitable for the purpose. Examples of commonly used liquid-permeable cover materials are non-woven textile materials, perforated plastic films, net made of plastic or textile, and liquid-permeable foam layers. Liquid-permeable cover materials which consist of continuous thin fibres which extend fundamentally in the longitudinal or transverse direction of the article are also found. Laminates consisting of two or more of the abovementioned possible cover materials are also common, as are covers consisting of different materials within different parts of the surface.

Absorbent articles comprising absorption bodies 6 which have particularly great strength and wear resistance can even function without any extra

liquid-permeable cover layer being required on that side of the article which faces the wearer during use.

The backing layer 4 also extends outside the absorption body 6 along the entire periphery of the absorption body 6. Normal backing layers on absorbent articles are usually liquid-impermeable, but other types of backing layer are also found. The backing layer 4 can consist of a number of different materials. It is most common for the backing layer 4 to consist of a thin liquidtight plastic film, but it is also possible to use other types of liquidtight material, such as non-woven material which has been made liquidtight, for example by coating with plastic, liquidtight foam layers, liquidtight glue or the like. The backing layer 4 can also consist of a vapour-permeable material. Laminates consisting of at least one liquidtight material are also found. These laminates usually consist of a liquidtight material which functions as a liquid barrier and a more textile-like material arranged on that side of the article which is oriented away from the wearer during use, the outside of the article then being more cloth-like.

The liquid-permeable cover layer 2 and the backing layer 4 are interconnected outside the absorption body 6 along the entire periphery of the absorption body 6.

The liquid-permeable cover layer 2 and the backing layer 4 can be interconnected in a number of different ways. Examples of connection methods are gluing, heat-melting, ultrasonic welding or the like.

Elastic means 5 are arranged outside the absorption body 6 in those parts of the side flaps 3 of the incontinence pad 1 which essentially run in the longitudinal direction of the incontinence pad 1. The elastic means 5 function as leg elastic and serve the purpose of preventing liquid and motions leaking out through the side edges 12, 13 running in the longitudinal direction and in

this way, together with surrounding layers, form outer liquid barriers 8. The elastic means 5 consist of one or more elastic threads which have been applied in a stretched state between the liquid-permeable cover layer 2 and the backing layer 4, at least in the crotch portion 9 of the incontinence pad 1. The elastic means 5 are connected to the backing layer 4 and the cover layer 2 by gluing, ultrasonic welding or the like.

In alternative embodiments, the elastic means can be arranged on that side of the side flaps 3 which is intended to face the wearer during use, or on the opposite side of the side flaps, and are then of course connected only to the cover layer 2 or the backing layer 4.

In alternative embodiments, the elastic means can consist of elastic band material made of, for example, foamed material.

The hourglass-shaped absorption body 6 can be constructed from one or more layers of cellulose fluff pulp. The cellulose fluff pulp can in this connection be mixed with fibres or particles of a highly absorbent polymer material of the kind which chemically binds great quantities of liquid during absorption, while forming a liquid-containing gel. The absorption body 6 can also comprise highly absorbent polymer material arranged in a layer inside the absorption body or in conjunction with the surface(s) of the absorption body. The absorption body 6 can also include additional components for improving the characteristics of the absorption body 6. Examples of such components are binding fibres, various types of liquid-spreading layers or fibres, shape-stabilizing components, reinforcing fibres or the like. The absorption body 6 can of course also consist of other types of absorption material, such as absorbent non-woven material, absorbent foam, textile materials, peat or mixtures of different types of absorption material.

Special layers for rapidly receiving large quantities of liquid and temporarily retaining this liquid in order then to pass the temporarily stored liquid on to other parts of the absorption body 6 can also be included in an incontinence pad of the specified type. Such receiving layers are then normally arranged between the liquid-permeable cover layer 2 and the absorption body 6 of the incontinence pad 1. A receiving layer is not shown in any of the figures.

In order to provide further protection against liquid or faecal matter leaking out over the side edges 12, 13 of the incontinence pad 1, the incontinence pad 1 is provided with inner side leakage barriers 9 on that side which is intended to face the wearer during use. The inner side leakage barriers 9 are arranged adjacent to the longitudinal edges 10 of the absorption body 6 and extend essentially in the longitudinal direction of the incontinence pad 1. Each inner side leakage barrier 9 is made from a separate material strip 11 which has two essentially parallel longitudinal edges 16, 17. The material strip 11 is double-folded, the longitudinal edges 16, 17 of the material strip 11 then being arranged next to one another. The edges 16, 17 constitute the base of the side leakage barrier 9, and the folded edge 7 constitutes the ridge 18 of the side leakage barrier 9. The edges 16, 17 of the material strip 11 are fixed to the cover layer 2 and then constitute the fixed edge 19 of the side leakage barrier. The ridge 18 of the material strip 11 constitutes the free edge 20 of the side leakage barrier 9.

In the front portion 21 and the rear portion 22 of the incontinence pad 1, the inner side leakage barriers 9 are folded down and connected to the cover layer 2.

The inner side leakage barriers 9 comprise elastic elements 24 connected to the inner side leakage barriers 9 in a pretensioned state. The elastic elements 24 are preferably arranged close to the free edges 20 of the inner side leakage barriers 9. When the pretensioned elastic elements 24 are

released, they contract together with the free edges 20 of the inner side leakage barriers 9, the inner side leakage barriers 9 then being brought into a raised configuration away from the liquid-permeable cover layer 2, at least in the crotch portion 23 of the incontinence pad 1, where the side leakage barriers 9 are not folded down and connected to the cover layer 2.

The rear and/or front portions of the diaper can also be provided with what is known as waist elastic 25 which consists of elastic means arranged along the front transverse edge 14 and/or the rear transverse edge 15 of the incontinence pad 1 in order to give the diaper a soft and flexible fit around the waist of the wearer. In this illustrative embodiment, only the rear end portion 22 of the incontinence pad 1 is provided with waist elastic 25 in the form of a thin strip of an elastic foamed material which is attached by glue between the backing layer 4 and the liquid-permeable cover layer 2. The waist elastic 25 is applied in a stretched state between the layers in order to bring about a holding-together force which stretches the incontinence pad 1 around the waist of the wearer.

On the rear end portion 22, two soft and inelastic fastening tabs 26 are arranged for securing the incontinence pad 1 around a wearer, one fastening tab 26 then being arranged on each side portion of the rear end portion 22. During use, the fastening tabs 26 connect the rear end portion 22 to the front end portion 21 by virtue of the fastening tabs 26 having fixation means means 27 which can attach to a receiving part 28 for the fixation means 27, which part is arranged on the front end portion 21 of the incontinence pad 1. The fastening tabs 26 are suitably made of a very soft and inelastic material, for example a single non-woven layer or a laminate.

In alternative embodiments, the fastening tabs can be elastic.

The fixation means 27 preferably consists of a male part of a hook and loop material and is attached to the fastening tab 26 by. for example, glue on that side of the fastening tab 26 which faces the receiving part 3 during use of the diaper.

The receiving part 28 for the fastening tab 26 consists of a strip of a receiving material adapted to the fixation means 27 of the fastening tab 26 and extends, as shown in Fig. 2, fundamentally parallel to the front transverse edge 14 on that side of the diaper which faces away from the wearer during use, that is to say on that side of the backing layer 4 which is oriented away from the absorption body 6. In the present illustrative embodiment, the receiving material consists of a female part of a hook and loop material and is suitably designed so that its extent in the longitudinal direction of the incontinence pad 1 coincides with the width 29 of the fastening tabs 26.

When the incontinence pad 1 is fitted on a wearer, the incontinence pad 1 is placed between the legs of the wearer in the crotch of the wearer. The incontinence pad 1 is then closed around the waist of the wearer by virtue of the fastening tabs 26 being made to overlap the front end portion 21 so that the fixation means 27 of the fastening tabs 26 can be applied to the receiving part 28 for securing the diaper.

The fastening tabs 26 are connected to the rear end portion 22 in connection areas 30 which are positioned in those areas of the rear end portion 22 which lie at the side edges 12, 13 running in the longitudinal direction. The connection areas 30 consist of parts of the fastening tabs 26 and the parts of the rear end portion 22 which are interconnected.

In alternative embodiments, the fixation means 27 of the fastening tabs 26 can consist of pressure-sensitive glue, the receiving part 28 then consisting

of a material to which the selected pressure-sensitive glue of the fixation means 27 can be connected so that a suitable bond strength is obtained. Material combinations are usually selected so that the connection between the fixation means 27 and the receiving part 28 can be opened and reclosed for inspection of the diaper during use.

The incontinence pad 1 is characterized mainly in that it comprises a fixation pocket 31 arranged in the front end portion 21 of the incontinence pad 1. The rectangular fixation pocket 31 is intended for fixing the hand of a person providing care when the incontinence pad 1 is to be used for wiping such as removing faecal matter or other substances from the lower abdomen of the incontinent person. The rectangular fixation pocket 31 is arranged on that side of the incontinence pad which is intended to face away from the wearer during use.

One part of the fixation pocket 31 consists of a separate rectangular material piece 32, and the other part of the fixation pocket 31 consists of the backing layer 4 of the incontinence pad 1. The rectangular material piece 32 is arranged with its long sides extending essentially in the longitudinal direction of the incontinence pad 1 and its short sides extending essentially in the transverse direction of the incontinence pad 1. The material piece 32 is connected to the backing layer 4 along both the edges of the material piece 32 extending in the longitudinal direction and along that edge extending in the transverse direction which faces the front transverse edge 14 of the incontinence pad 1, the opening 33 of the pocket 31 being arranged at the other edge of the material piece 32 extending in the transverse direction and facing the crotch portion 23 of the incontinence pad 1.

The material piece 32 can consist of a number of different materials. It is most common for the material piece 32 to consist of a thin plastic film, but it is also possible to use other types of material, such as non-woven material.

foam layers, tissue layers or the like. The material layer 32 can also consist of a vapour-permeable material, which is especially advantageous if the backing layer 4 of the incontinence pad 1 also consists of a vapour-permeable material. The material piece 32 and the backing layer 4 can be interconnected in a number of different ways. Examples of connection methods are gluing, thermal welding, ultrasonic welding or the like.

When, during use, the incontinence pad 1 is in its fitted position on the incontinent wearer, the fixation pocket 31 constitutes a virtually unnoticeable detail on the incontinence pad 1 and is neither visible nor disturbs the wearer in terms of comfort or in any other way.

When the incontinence pad 1 is to be changed and the lower abdomen of the incontinent wearer is soiled with faecal matter, the person providing care unfastens the fastening tabs 26 from the front end portion 21 of the incontinence pad 1 and inserts a hand into the fixation pocket 31 through the opening 33. When the hand has been inserted sufficiently deeply into the fixation pocket 31, the incontinence pad 1 is securely fixed to the hand of the person providing care, and the incontinence pad 1 can then be used in order to wipe away a large part of the faecal matter which is located on the skin of the incontinent person. Good retention of the incontinence pad 1 is obtained without the incontinence pad 1 having to be crumpled up, the wiping surface thus not being reduced in size. Good retention of the incontinence pad without crumpling up also means that the risk of urine being squeezed out of the incontinence pad 1 is considerably reduced. Owing to the positioning of the fixation pocket 31 in the front part of the incontinence pad 1 and the orientation of the opening 33 towards the crotch portion 23 of the incontinence pad 1, the wiping operation can be carried out without the incontinence pad 1 having to be repositioned before wiping. The person providing care therefore has only to press the incontinence pad 1 against the incontinent person and guide the incontinence pad 1 from its position

backwards between the legs of the incontinent person and past the anus area, the soiled parts of the incontinent person thus being cleaned. Throughout the wiping operation, the hand of the person providing care is, by virtue of its positioning inside the fixation pocket 31, well protected against being soiled by faecal matter from the incontinent person.

For optimum functioning of the fixation pocket 31, it is important that the size of the fixation pocket 31 is adapted to fit the hand of an adult person so that good retention of the incontinence pad 1 is ensured. In order to fit the hand of an adult person well, the pocket 31 suitably has an extent in the transverse direction, or width W, of between 8 and 25 cm, preferably between 12 and 18 cm, and an extent in the longitudinal direction, or depth D, between 10 and 30 cm, preferably between 15 and 22 cm, when the incontinence pad is spread out.

The second embodiment shown in Fig. 3 concerns an incontinence pad 50 constructed in the same way as the incontinence pad 1 according to Figs. 1 and 2.

In the front portion 55 of the incontinence pad 50, on that side of the incontinence pad 50 which is intended to face away from the wearer during use, a fixation pocket 51 is arranged, the fixation pocket 51 having the same size and shape as the front portion 55 of the incontinence pad 50. One part, the outer part, of the fixation pocket 51 consists of a separate material layer 54 arranged on that surface of the incontinence pad 50 which is intended to face away from the wearer during use, and the other part of the fixation pocket consists of the backing layer 53 of the incontinence pad 50. The material layer 54 has the same shape and size as the front portion 55 of the incontinence pad 50. The material layer 54 is connected to the backing layer 53 along the longitudinal edges 56 and the front transverse edge 57 of the incontinence pad 50 The material layer 54 extends from the front transverse

edge 57 of the incontinence pad 50 roughly 10-30 cm in the direction of the rear transverse edge 58 of the incontinence pad 50. The material layer 54 is not connected to the backing layer 53 along its edge 59 arranged towards the rear transverse edge 58.

It is also possible to envisage a fixation pocket 51 which has the same shape as the front portion 55 of the incontinence pad 50 but a smaller size than the front portion 55. The bottom 63 of the fixation pocket 51 can then be located at a distance from the front transverse edge 57 of the incontinence pad 50 in the direction towards the rear transverse edge 58.

The space between the material layer 54 and the backing layer 53 constitutes the fixation pocket 51 of the incontinence pad 50, the opening 52 of the fixation pocket 51 being arranged at that edge 59 of the material layer 54 which is not connected.

On that surface of the material layer 54 which faces away from the wearer during use, a receiving part 60 for receiving the fastening tabs 61 of the incontinence pad 50 is arranged at the front transverse edge 57 of the incontinence pad 50.

A fixation pocket 51 in accordance with the embodiment shown in Fig. 3 has the advantage that it is so large that, after use of the incontinence pad 51, it can be turned inside out around the incontinence pad 51 which has previously been rolled or folded up starting from the rear transverse edge 58, and then function as a disposal bag for the used incontinence pad 50.

Another advantage of a fixation pocket 51 which has the same shape as the front portion 55 of the incontinence pad 50 is that the fixation pocket is less visible than a fixation pocket which has a shape which differs from the front portion 55 of the incontinence pad 50.

In order to ensure good fixing of a hand inserted into the fixation pocket 5, special fixation means can be arranged inside or in conjunction with the fixation pocket 51.

A simple way of producing a fixation means is to provide at least one surface inside the fixation pocket 51 with a high-friction material. Examples of high-friction materials are coarse-fibred non-woven materials, plastic net, friction glue, foam plastic or the like. The high-friction material can then constitute the entirety of the inside of the fixation pocket 51 or be arranged only on part of the inside of the fixation pocket.

An alternative way of improving the fixing of a hand inserted into the fixation pocket 51 of the incontinence pad 50 is to elasticate the fixation pocket 51. One or more pretensioned elastic means 62 are then connected to the material layer 54, essentially in the transverse direction of the incontinence pad 50, the fixation pocket 51 then fitting tightly around the hand of the person providing care and in this way fixing the hand better during the wiping operation. It is possible to elasticate the whole material layer 54, from the opening 52 as far as the bottom of the fixation pocket 51 located at the front transverse edge 57 with a large number of elastic means 62. It is also possible to elasticate the material piece 54 only adjacent to the opening 52 of the fixation pocket 51, only one or a few elastic means 62 being connected to the material layer 54 adjacent to the opening 52 of the fixation pocket 51. In alternative embodiments, the elastic means 62 can consist of elastic band material made of foamed material, rubber material or the like. It is also possible to envisage the whole material layer 54 consisting of an elastic material, for example elastic non-woven, elastic plastic film or the like.

The third embodiment shown in Fig. 4 concerns an incontinence pad 70 comprising a fixation pocket 71, seen from that side of the incontinence pad which is intended to face away from the wearer during use.

One part of the fixation pocket 71 consists of the backing layer 74 of the incontinence pad 70, and the other part consists of a material piece 76. For greater clarity, some of the material piece 76 has not been shown in Fig. 4.

The incontinence pad 70 and the fixation pocket 71 are constructed in the same way as the embodiment in accordance with Fig. 3.

Inside the fixation pocket 71, the incontinence pad 70 has an inner fixation means 72. The inner fixation means 72 is formed by an extra material piece 73 which is attached to the backing layer 74 of the incontinence pad 70 by means of gluing, welding or the like. The attachment between the backing layer 74 of the incontinence pad 70 and the extra material piece 73 can be made continuously over the entirety of the surfaces lying against one another or be in the form of separate attachment points or attachment areas.

The extra material piece 73 suitably consists of the same kind of material as the material of the backing layer 74, or another suitable material which is easy to connect to the backing layer 74, such as non-woven material, tissue material, paper material or the like.

The inner fixation means 72 consists of a gripping tab 75 of fundamentally rectangular shape which projects from the backing layer 74 and is formed by a fold, extending in the depth direction of the fixation pocket 71, in the extra material piece 73. During wiping using the incontinence pad 70, the inner fixation means 72 is held between two fingers, for example between the middle finger and the index finger, as shown in Fig. 4.

Alternative inner fixation means are also possible: for example, it is possible, instead of forming a fold which is held firmly between two fingers as in the illustrative embodiment according to Fig. 3, to form a tunnel which extends in the depth direction of the fixation pocket 71 and into which at least one finger is inserted for fixing the incontinence pad 70. An example of such fixation means with a tunnel extending in the depth direction is described for a wiping cloth in Swedish patent application no. 0003113-8.

A simple inner fixation means can be arranged by virtue of connecting the material piece 76 to the backing layer 74 along a line extending in the longitudinal direction of the incontinence pad 70. The connection is preferably arranged at the same depth and also has the same length in the fixation pocket 71 as the gripping tab 75 in Fig. 4. During use of the fixation pocket 71, the connection line is positioned between two fingers, the incontinence pad being fixed to the hand in the same way as when the gripping tab 75 in Fig. 4 is used. In order to make it possible to turn the fixation pocket 71 inside out around the used rolled-up or folded-up incontinence pad, the connection can advantageously be made so weak that it is easily torn when the operation to turn the pad inside out is performed. The connection can be made in a number of different ways, suitably by means of gluing, ultrasonic welding, thermal welding or the like.

The fourth embodiment shown in Fig. 5 concerns an incontinence pad 80 which is constructed in the same way as the incontinence pad 50 in Fig. 3.

A separate material layer 84 is arranged on that side of the backing layer 83 of the incontinence pad 80 which is intended to face away from the wearer during use. The material layer 84 is arranged in the front portion 85 of the incontinence pad 80 and has the same shape and size as the front portion 85 of the incontinence pad 80. The material layer 84 is connected to the backing layer 83 along an outer connection line 91 which extends along the

longitudinal edges 86 and the front transverse edge 87 of the incontinence pad 80. The material layer 84 is not connected to the backing layer 83 along its edge 89 arranged towards the rear transverse edge 88.

A fixation pocket 81, adapted to fit the hand of an adult person, is arranged between the material layer 84 and the backing layer 83. The fixation pocket 81 is produced by virtue of an inner connection 82 having been made between the material layer 84 and the backing layer 83. The fixation pocket 81 has a rectangular shape with the long sides extending in the longitudinal direction of the incontinence pad 80 and the short sides in the transverse direction. The inner connection 82 extends along the long sides of the fixation pocket 81 and along the short side which is oriented towards the front transverse edge 87 of the incontinence pad 80. Along that transverse edge of the fixation pocket 81 oriented towards the rear transverse edge 88 of the incontinence pad 80, the fixation pocket 81 has an opening 90.

In order to fit the hand of an adult person well, the pocket 81 suitably has a width W between 8 and 25 cm, preferably between 12 and 18 cm, and a depth D between 10 and 30 cm, preferably between 15 and 22 cm, when the incontinence pad 80 is spread out.

In order to make it possible to turn the fixation pocket 81 inside out around the used rolled-up or folded-up incontinence pad, the connection can advantageously be made so weak that it is easily torn when the operation to turn the pad inside out is performed. The connection can be made in a number of different ways, suitably by means of gluing, ultrasonic welding, thermal welding or the like.

The fifth embodiment shown in Fig. 6 concerns an incontinence pad 95 constructed in the same way as the incontinence pad 80 according to Fig. 5.

The incontinence pad 95 is shown from the side which is intended to face away from the wearer during use.

The fixation pocket 96, produced by an inner connection 97, has a mitten shape in order further to improve the fit and fixing on the hand of an adult person. This inner connection 97 as well can advantageously be made so weak that it can be broken when the used incontinence pad 95 is turned inside out. The fixation pocket 96 can of course also have the shape of a glove with one or more fingers.

The sixth embodiment shown in Fig. 7 concerns an incontinence pad 100 intended to be placed in special fixation briefs or a pair of pants during use, the incontinence pad 100 not having any fixation means of its own.

This type of incontinence pad 100 is often of symmetrical design, so that the incontinence pad 100 can be fitted on the wearer with either its first transverse edge 101 or its second transverse edge 102 towards the front or towards the rear.

The incontinence pad 100 is essentially constructed in the same way as the incontinence pad 80 in Fig. 5 with regard to liquid-permeable cover layer, absorption body and backing layer. A first separate material layer 104 and a second separate material layer 105 are arranged on that side of the backing layer 103 of the incontinence pad 100 which is intended to face away from the wearer during use.

The first separate material layer 104 has the same shape as the first waist portion 106 of the incontinence pad 100. The first separate material layer 104 is connected to the backing layer 103 along the longitudinal edges 108 and the first transverse edge 101 of the incontinence pad 100. The first

material layer 104 is not connected to the backing layer 103 along its edge 109 facing the second transverse edge 102.

A first fixation pocket 110, adapted to fit the hand of an adult person, is arranged between the first separate material layer 104 and the backing layer 103. The first fixation pocket 110 is produced by virtue of a first inner connection 112 having been arranged between the first extra material layer 104 and the backing layer 103. The first fixation pocket 110 has a rectangular shape with the long sides extending in the longitudinal direction of the incontinence pad 100 and the short sides in the transverse direction. The first inner connection 112 extends along the long sides of the first fixation pocket 110 and along the short side which is oriented towards the first transverse edge 101 of the incontinence pad 100. The first fixation pocket 110 has a first opening 114 along that transverse edge of the first fixation pocket 110 oriented towards the second transverse edge 102 of the incontinence pad 100.

The second separate material piece 105 has the same shape as the second waist portion 107 of the incontinence pad 100. The second separate material layer 105 is connected to the backing layer 103 along the longitudinal edges 108 and the second transverse edge 102 of the incontinence pad 100. The second separate material layer 105 is not connected to the backing layer 103 along its edge 116 arranged towards the first transverse edge 101.

A second fixation pocket 111, adapted to fit the hand of an adult person, is arranged in a corresponding manner between the second extra material layer 105 and the backing layer 103. The second fixation pocket 111 is produced by virtue of a second inner connection 113 having been arranged between the second separate material layer 105 and the backing layer 103. The second fixation pocket 111 has a rectangular shape with the long sides extending in the longitudinal direction of the incontinence pad 100 and the

short sides in the transverse direction. The second inner connection 113 extends along the long sides of the second fixation pocket 111 and along the short side which is oriented towards the second transverse edge 102 of the incontinence pad 100. The second fixation pocket 111 has a second opening 115 along that transverse edge of the second fixation pocket 111 oriented towards the first transverse edge 101 of the incontinence pad 100.

Shapes other than rectangular shapes are of course possible for both the first and second fixation pockets 110, 111.

In order to make it possible to turn one of the fixation pockets 110, 111 inside out around the used rolled-up or folded-up incontinence pad 100, the inner connections 112, 113 can advantageously be made so weak that they tear easily when the operation to turn the pad inside out is performed. The connection can be made in a number of different ways, suitably by means of gluing, ultrasonic welding, thermal welding or the like.

Irrespective of which end of the symmetrical incontinence pad 100 is placed towards the front on the wearer during use, the incontinence pad 100 therefore always provides a fixation pocket 110, 111 for fixing a hand of the person providing care during wiping using the incontinence pad 100, positioned on that part of the incontinence pad 100 which is located at the genitals of the wearer.

A design of an incontinence pad with a fixation pocket arranged in the front part of the incontinence pad and a fixation pocket arranged in the rear part of the incontinence pad is also good for non-symmetrical incontinence pads if the person providing care wishes to carry out the wiping operation in the opposite direction to the procedure described above, that is to say wiping from the rear and forwards on the wearer.

Symmetrical incontinence pads, which can be placed on a wearer with either transverse edge towards the front, can of course also be provided with only one fixation pocket. For this type of symmetrical incontinence pad with only one pocket, it is suitable to mark how the incontinence pad is to be oriented on the wearer, that is to say what is the back and what is the front on the incontinence pad. The marking can consist of text, symbols, colour marking or the like.

Non-symmetrical incontinence pads can also be provided with only one fixation pocket on that part of the incontinence pad which is located towards the rear on the wearer during use, wiping then being carried out most simply from the rear and forwards on the wearer.

Fig. 8 shows an incontinence pad 120 according to a seventh embodiment. The figure concerns what is known as a belt product.

In a belt product, the rear side portions consist of the belts 121 which hold the diaper firmly around the wearer during use. Preferably, two belt halves 124, 125 are arranged one on either side of the central portion 122 in the rear portion 123, the belt halves 124, 125 forming the rear side portions. During use, the belt 121 is fitted around the trunk of the wearer, and the belt halves 124, 125 are interconnected at the front on the abdomen of the wearer. The front portion 126 of the incontinence pad is finally fixed to the outside of the belt at the front on the abdomen of the wearer. In this connection, fixation means 127 are arranged on the liquid-permeable cover layer 128 of the incontinence pad 120. That side of the belt halves 124, 125 which is arranged facing outward from the wearer during use is provided with material to which the fixation means can be fixed. A separate material layer 130 is arranged on that side of the backing layer 129 of the incontinence pad 120 which is intended to face away from the wearer during use. The material layer 130 has the same shape as the front portion 126 of the incontinence

pad 120. The material layer 130 is connected to the backing layer 129 along the longitudinal edges 131 and the front transverse edge 132 of the incontinence pad 120. The material layer 130 is not connected to the backing layer 129 along its edge 134 facing the rear transverse edge 133.

A fixation pocket 135, adapted to fit the hand of an adult person, is arranged between the material layer 130 and the backing layer 129. The fixation pocket 135 is produced by virtue of an inner connection 136 having been arranged between the material layer 130 and the backing layer 129. The fixation pocket 135 has a rectangular shape with the long sides extending in the longitudinal direction of the incontinence pad 120 and the short sides in the transverse direction. The inner connection 136 extends along the long sides of the fixation pocket 135 and along the short side which is oriented towards the front transverse edge 132 of the incontinence pad 120. The fixation pocket 135 has an opening 137 along that transverse edge of the fixation pocket 135 oriented towards the rear transverse edge 133 of the incontinence pad 120.

Shapes other than rectangular shape are of course possible for the fixation pocket 135.

In order to make it possible to turn the fixation pocket 135 inside out around the used rolled-up or folded-up incontinence pad, the inner connection 136 can advantageously be made so weak that it is easily torn when the operation to turn the pad inside out is performed. The inner connection 136 can be made in a number of different ways, suitably by means of gluing, ultrasonic welding, thermal welding or the like.

The eighth embodiment shown in Fig. 9 concerns an incontinence pad 140 comprising a fixation pocket 141. The incontinence pad 140 is shown from the side which is intended to be oriented away from the wearer during use.

The fixation pocket 141 consists of a material piece 142 which is connected to the backing layer 145 of the incontinence pad 140 only along its longitudinal edges 143, 144, the fixation pocket 141 having a first opening 146 and a second opening 147. The second opening 147 is oriented towards the front transverse edge 148 of the incontinence pad 140, and the first opening 146 is oriented towards the rear transverse edge of the incontinence pad 140.

The distance between the two longitudinal connections is 8 – 15 cm, preferably 9 – 11 cm.

The fixation pocket 141 and the backing layer 145 can be interconnected in a number of different ways. Examples of connection methods are gluing, thermal welding, ultrasonic welding or the like.

The material piece 142 can consist of a number of different materials. It is most common for the material piece 142 to consist of a thin plastic film, but it is also possible to use other types of material, such as non-woven material, foam layers, tissue layers or the like.

In order for the fixation pocket 141 to fix better to the hand of a person providing care, it is also conceivable to make the material piece 142 elastic, at least in the transverse direction of the incontinence pad 140. In this connection, the fixation band 141 can comprise elastic means or consist of an elastic material piece.

During wiping using the incontinence pad 140, the incontinence pad 140 is fixed to the hand of the wiper by virtue of the hand being inserted into the fixation pocket 141 as shown in Fig. 9. The fingertips then protrude from the fixation pocket 141 through the second opening 147.

It is also possible to envisage, as shown in Fig. 10, the material piece 142 consisting of a narrow band 150 which extends in the transverse direction of the incontinence pad 140 and is connected to the backing layer 145 at its ends. During the wiping operation, the hand of the wiper is then fixed to the incontinence pad 140 over that limited part of the hand located between the band 150 and the backing layer 145.

It is also possible to provide the band 150 with one or more intermediate connections 151 arranged between the end connections 152 of the band 150. During wiping using the incontinence pad, the intermediate connections 151 are positioned between, for example, the thumb and the index finger, as shown in Fig. 10, or between other suitable fingers, in which way the intermediate connection 151 further improves fixation. A narrow fixation band 150 of course considerably reduces the material cost.

The invention also covers all conceivable combinations of the illustrative embodiments described.

Furthermore, the invention is not limited to the illustrative embodiments above, but can of course be applied to other embodiments within the scope of the patent claims below.

CLAIMS

1. Absorbent article (1), with a longitudinal direction and a transverse direction and comprising an upper liquid-permeable cover layer (2), a lower backing layer (4), an absorbent body (6) arranged between the cover layer (2) and the backing layer (4), a front end portion (21) intended to be oriented towards the front during use, a rear end portion (22) intended to be oriented towards the rear during use, and a crotch portion (23) arranged therebetween, characterized in that the article comprises at least one fixation pocket (31), arranged in the front end portion (21) on that side of the backing layer (4) which faces away from the absorbent body (6), wherein the fixation pocket (31) is provided with an opening (33).

2. Absorbent article (1) according to Claim 1, wherein the fixation pocket (31) comprises a first, outer, part which consists of a separate material piece (32) and a second, inner, part which consists of the backing layer (4) of the absorbent article, and the separate material piece (32) being connected to the backing layer (4) along the edge of the separate material piece (32), and part of the edge of the separate material piece, which part constitutes the opening (33) of the fixation pocket (31), not being connected to the backing layer (4).

3. Absorbent article (1) according to Claim 1 and 2, wherein the opening (33) of the fixation pocket (31) faces the crotch portion (23) of the absorbent article.

4. Absorbent article (100) according to any one of the preceding claims, wherein the article comprises two fixation pockets (110, 111), one fixation pocket being arranged in each end portion (21, 22) of the article.

5. Absorbent article (1) according to any one of the preceding claims, wherein the fixation pocket (31) has a rectangular shape having a width (W) between 8 and 25 cm, preferably between 12 and 20 cm, and a depth (D) between 10 and 30 cm, preferably between 11 and 25 cm.

6. Absorbent article (50) according to any one of the preceding claims, wherein the fixation pocket (51) has the same shape as the front portion (55) or rear portion of the absorbent article.

7. Absorbent article according to any one of the preceding claims, wherein the fixation pocket comprises a fixation means.

8. Absorbent article according to Claim 7, wherein the fixation means comprises a high-friction surface located inside the pocket.

9. Absorbent article (50) according to Claim 7, wherein the fixation means comprises pretensioned elastic means (62).

10. Absorbent article (70) according to Claim 7, wherein the fixation means (72) comprises a gripping tab (75) projecting from the pocket.

11. Absorbent article according to Claim 7, wherein the fixation means comprises a connection line between the separate material piece of the fixation pocket and the backing layer.

12. Absorbent article (80) according to any one of the preceding claims, wherein the fixation pocket (81) has an outer connection line (91) and an inner connection (82) between the separate material piece (84) of the fixation pocket and the backing layer (83), it being possible to break the inner connection (82), as a result of which the fixation pocket is enlarged and is delimited by the outer connection line (91).

13. Absorbent article (80) according to Claim 12, wherein the fixation pocket, which is delimited by the inner connection (82), is rectangular and has a width (W) between 8 and 25 cm, preferably between 12 and 20 cm, and a depth (D) between 10 and 30 cm, preferably between 11 and 25 cm.

14. Absorbent article (95) according to Claim 12, wherein the inner fixation pocket (96) has a mitten shape.

15. Absorbent article (140) according to any one of Claims 1 – 13, wherein the fixation pocket (141) has a first opening (146) and a second opening (147), the openings being essentially arranged in the transverse direction of the article (140).

16. Absorbent article (140) according to Claim 15, wherein the fixation pocket (141) consists of a band (150) extending in the transverse direction of the article (140).

17. Absorbent article (140) according to Claim 16, wherein the band (150) is connected to the backing layer (145) in at least one place between the end connections (152) of the band.

18. Absorbent article (140) according to any one of the preceding claims, wherein correct orientation of the front portion or rear portion of the article is ensured by the article comprising at least one marking which shows how the article is to be oriented on a wearer.

19. An absorbent article according to claim 1 substantially as described herein with reference to any one of figures 1 to 10.

Application No: GB 0312721.4
Claims searched: 1-19

Examiner: Alex Littlejohn
Date of search: 12 August 2003

Patents Act 1977 : Search Report under Section 17

Documents considered to be relevant:

Category	Relevant to claims	Identity of document and passage or figure of particular relevance	
X	1 at least	GB 2354172 A	(Barr) see whole document, e.g. Fig 1
X	1 at least	GB 2326811 A	(YKK) see whole document, pocket 24
X	1 at least	GB 2302026 B	(Young) see whole document, pocket 1
X	1 at least	GB 2298354 A	(French) see whole document, e.g. Fig 1
X	1 at least	WO 98/13002 A	(Procter & Gamble) see whole document, pockets 50
X	1 at least	US 5760694	(Nissim) see whole document, pocket 120
X	1 at least	US 5304158	(Webb) see whole document, pocket 31
X	1 at least	US 4964859	(Feldman) see whole document, pocket 20

Categories:

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

Field of Search:

Search of GB, EP, WO & US patent documents classified in the following areas of the UKC[V]:

A3V; A5R

Worldwide search of patent documents classified in the following areas of the IPC[7]:

A61F

The following online and other databases have been used in the preparation of this search report :

EPODOC, JAPIO, WPI